

Título: Burnout and Self-Compassion among Veterinarians: Examining Occupational Stress in the Province of Las Palmas.

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<u>INDEX</u>

ABSTRA	СТ
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1. INTRODUCTION	1
1.1. What is Burnout: Definition and demographic overview	1
1.2. Burnout among veterinarians: Why it's a stressful profession	2
1.3. Self-compassion: Definition and psychological implications	3
1.4. Anxiety and depression: Incidence and consequences	4
2. HYPOTHESIS	5
3. OBJECTIVES	5
4. MATERIAL AND METHODS	6
4.1. Instruments	6
4.2. Study population	7
4.3. Statistical analysis	8
5. RESULTS	9
5.1. Analysis of burnout syndrome in the study population	9
5.2. Analysis of Self-Compassion in the study population	16
5.3. Demographic factors associated with mental health and their relationship with	
burnout syndrome and self-compassion	22
6. DISCUSSION	26
7. CONCLUSIONS	29
8. ACKNOWLEDGEMENTS	30
9. REFERENCES	31



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ABSTRACT

Objectives

The study aimed primarily to assess burnout syndrome in veterinarians from the province of Las Palmas using Spanish validated scales in. Additionally, it sought to understand participants' mental health status, potential use of benzodiazepines and gather relevant demographic data to observe significant changes among different variables.

Methods:

The study utilized validated scales for assessing burnout and self-compassion, that were chosen based on criteria of validation in Spanish. The burnout scale comprised 15 questions, while the self-compassion scale consisted of 12 questions. Additionally, mental health status questions and demographic inquiries were included. Data collection period occurred from October 17 to December 15, 2023, acquiring 141 responses from the College of Veterinarians (Las Palmas).

Results:

Demographic factors are crucial in understanding burnout risk since significant differences in exhaustion and cynicism were found based on it. This was the case of graduation year (age showed a negative association with cynicism and a positive association with work efficacy), work environment (rural practitioners had lower odds of exhaustion respect of the urban ones) and also, gender disparities (female gender trended towards higher exhaustion).

Conclusion:

The study revealed high levels of exhaustion and cynicism. Correlations between burnout and self-compassion were noted, underscoring the need for timely intervention to improve veterinarians' well-being.

Keywords:

Burnout; self-compassion; anxiety; depression; veterinarians; mental health.





1. INTRODUCTION

1.1. What is Burnout: Definition and demographic overview

Burnout Syndrome (BOS) was first described by Freudenberger in 1974 and is defined as the response to long-term stress due to the unfavorable working conditions of the workplace (1). In other words, it is a state of exhaustion resulting from prolonged and excessive workplace stress (2). Burnout negatively affects the health and personal lives of the employees experiencing it as they develop cynical attitudes, and feel a loss of professional self-efficacy (3). It is estimated that burnout is responsible for 8% of work-related diseases. Generally, women are at a higher risk of experiencing this syndrome (4). Burnout rates have varied according to the generation to which the individual belongs, with a higher prevalence among younger generations (Millennials [59%], Gen Z [58%], and Gen X [54%]), in comparison, for example, with Baby Boomers (31%) (5).

There are several typical components of burnout, which include emotional exhaustion, job detachment, cynicism, a feeling of hopelessness, and performance decline. Emotional exhaustion involves a sense of moral depletion, varying depending on individual sensitivities and the stage of burnout. It can manifest as a lack of will and energy to perform routine tasks and make decisions. Job detachment leads to a hostile attitude toward the job, accompanied by distancing. A feeling of hopelessness arises when efforts seem ineffective, resulting in performance decline and, in severe cases, a complete cessation of work. Consequently, a series of physical symptoms appear, including decreased immunity, frequent illnesses, stomach pains, insomnia, and headaches.

The veterinary profession is one of the professions with the highest prevalence of burnout. Growing demands from pet owners, excessive workloads, the effects of the global pandemic, educational debt, and instances of cyberbullying are all contributing to the burnout. Because of these stressors, many veterinarians are grappling with compassion fatigue, defined as the emotional and physical exhaustion often considered the adverse consequence of caring.



Despite its impact on the veterinary community, there are few published studies on this matter. In Spain, a study was conducted with 282 samples of Spanish veterinarians (57.4% women and 42.6% men). Data were obtained through an online survey, showing within the population considered that 23% suffered from burnout syndrome (<u>6</u>).

A higher prevalence of burnout was associated with small animal clinicians (75.3%) and women (66.1%), in comparison to large animal clinicians (24.6%) and men (33.8%). This study revealed that among the Spanish sample, 5% claimed to never feel useful, 28% sometimes, 47% frequently, and 19% every day. Some authors have tried to explain the poorer mental health of female veterinarians, a result oftenly found in different studies Worldwide. This situation may be because of poorer integration within a profession that has traditionally been predominantly masculine.

As far as we know, no study related to burnout in the veterinary community had been conducted in the Canary Islands. Thus, the present study is the first to be carried out at the provincial level, with the support of the veterinary colleges by the Ilustre Colegio Oficial de Veterinarios de Las Palmas.

1.2. Burnout among veterinarians: Why it's a stressful profession

Veterinary emergency care providers had higher total scores on emotional exhaustion and depersonalization and lower total scores on personal accomplishment compared with human emergency department health professionals. Employees who reported experiencing burnout explained that it was due to perceived unmanageable workload, lack of control over work, poor reward (recognition) for work, or unfair allocation of resources at work (7).

In a survey that involved 3.118 Germany Veterinarians, it was reported that depression was manifested in 27.78%, a much higher percentage than observed in the general population (3.99%). Moreover, the suicide ideation was 19.20% (compared to the general population: 5.70%) and the risk of suicide was 32.11% (compared to the general population: 6.62%) (§). On the other hand, the same survey but for 3.540 US Veterinarians and a slightly different questionnaire showed that the psychological stress was 6.80% (compared to the general population: 3.50%) in males, and 10.9% (compared to the general population: 4.40%) in females (§).



Explaining this situation is complex, as it is a multifactorial problem. In general terms, according to international data, average burnout rate has increased by 9.4% over the last year. This can be attributed to restrictions due to the pandemic, a deficit of vet staff, or an increasing number of clients coupled with longer appointment times.

According to the Veterinary Healthcare System, i) younger veterinarians remain the most burned-out, ii) vet technicians are the most affected roles, iii) women are significantly more burned-out, and iv) the higher the patient care activity, the greater the risk of burnout (cut off: caseload is higher than 30 patients per day) (9). Moreover, v) a correlation between work-life balance and burnout rate was found, vi) having a strategy means lowering burnout, and vii) having clear goals contributes to personal satisfaction and reduces burnout rates. Nevertheless, reality prevails, with burnout rates increasing year after year, posing a risk to the health of veterinary professionals.

1.3. Self-compassion: Definition and psychological implications

Self-compassion is defined by a kind, warm, and caring attitude toward oneself, entailing a positive view of the self and the recognition that personal shortcomings are only human (10). Self-compassion partially mediates the relationship between self-critical perfectionism, depression, and burnout. It is conceptualized as comprising three interrelated components: (1) self-kindness, as opposed to self-judgment, involving offering kindness and empathy to oneself while refraining from judgment and self-criticism; (2) common humanity versus isolation, whereby common humanity refers to a belief that everyone is prone to mistakes and failures, while isolation refers to feelings of being cut off from others due to emotions of shame from one's inadequacies; and finally, (3) mindfulness versus overidentification, referring to being aware and accepting of the present moment and all the thoughts and feelings that come with it, without reacting to them or judging them, versus ruminating about one's limitations (11).

Results of a study conducted among medicine and dentistry students showed that low self-compassion predisposes to burnout due to high levels of perfectionism (10). Another study conducted among psychologists showed that those with a higher level of self-compassion experienced lower levels of depression and burnout (12). Self-compassion, as described above, has shown positive associations with various favorable behavioral outcomes, including life satisfaction; and negative associations with undesirable outcomes such as rumination, avoidance, and overall emotional dysregulation (13).



1.4. Anxiety and depression: Incidence and consequences

Anxiety is defined as a feeling of fear, dread and worries that is generally experienced by certain people when faced with decision making or problems during life. For people with anxiety disorders, fear is not temporary and can be overwhelming (14).

Depression is a psychiatric disorder that affects mood, behavior, and overall health. It causes prolonged feelings of sadness, emptiness, or hopelessness, and a loss of interest in activities that were once enjoyed ($\underline{15}$).

According to data collected in a report by the Spanish Ministry of Health, anxiety disorder affects 6.7% of the population, while depression is present in 4.1%. As might be expected, social stress and the curtailment of civil liberties resulting from the SARS-CoV-2 pandemic have worsened the situation. Moreover, according to another study published in The Lancet, the severity of depressive disorders has increased by 28%, and is expected to increase by 25% for cases of anxiety disorder (<u>16</u>). In a study done for Korean veterinary students, the proportion of students above a severe level of depression, anxiety, and stress according to the DASS-21 (Depression-Anxiety-Stress-21 items) scales was 30.9, 35.8 and 43.2%, respectively. Statistical analysis revealed that female and pre-clinical students were more vulnerable to depression, anxiety, and stress (<u>17</u>).

Benzodiazepines are a pharmacological group composed of substances with muscle relaxant effects. In industrialized countries, the consumption of benzodiazepines has exponentially increased, especially following the restrictions resulting from the SARS-CoV-2 pandemic. A report published by the Spanish Agency of Medicines and Health Products stated that the consumption of this type of substances amounts to 94.33 daily doses per 1.000 inhabitants. This figure places our country in third place in the European ranking, behind Portugal and Croatia (<u>16</u>). Benzodiazepines may help alleviate insomnia and anxiety but not depression. They have dependency and withdrawal issues for some people. Benzodiazepines may increase the risk of falls in older people and their presence has been linked to suicides (<u>18</u>). Despite the availability of treatments, 40% of patients with depression or anxiety do not seek treatment, and of those who do, less than half are offered beneficial treatment (<u>19</u>). The profile resulting from the use of these substances - poor prescription practices, overdosing, and the lack of specialized psychological supervision - has serious consequences for individuals.



Benzodiazepines adverse effects are quite difficult to detect and, moreover, it is also hard to relate some of the following symptoms associated to their long-term use: excessive sedation, memory impairment, paradoxical disinhibition, sleep disturbances, among others (20), which could results in work impairment, especially in a collective - veterinarians - at higher risk of stress, burnout and low levels of self-compassion.

2. HYPOTHESIS

- The veterinary profession is one of the professional groups with the highest levels of anxiety/depression, according to official data, which may also be occurring in our local context.
- Burnout syndrome influences job satisfaction and can be considered as an early sign of further problems. There is a possibility of a high level of burnout among veterinary professionals in the province of Las Palmas.
- Certain individual characteristics related to self-compassion modulate the perception of the environment and how daily inevitable failures are coped with, serving as another early sign related to mental health problems. Levels of self-compassion and burnout syndrome may be related.
- As measures to combat personal dissatisfaction, the use of anxiolytics and specialized medical treatments emerge as the first option. It could be that the veterinary community in Las Palmas is in need of specialized attention.

3. OBJECTIVES

- Study the levels of anxiety and depression in the veterinary community of Las Palmas based on the Burnout Syndrome.
- Determine the degree of work-related burnout in the veterinary community of Las Palmas.
- Examine the level of self-compassion among veterinarians in Las Palmas and its relationship with burnout to understand the underlying reasons for any existing work-related burnout.
- Investigate adherence to and the perceived need for medical (psychological/psychiatric) and pharmacological (use of anxiolytics) treatments in response to work-related anxiety/depression.



4. MATERIAL AND METHODS

4.1. Instruments

There are multiple scales that assess burnout syndrome. In choosing the one used, we set the following criteria: it should be validated, and the validation should be done in Spanish. Finally, we opted for the measurement instrument used by the Ministry of Labor and Social Affairs of the Government of Spain (21), which is an adaptation of a previously published scale (22). It consists of 15 questions that are answered on a range of 7 options: never, almost never, sometimes, regularly, quite often, almost always, and always. Three subscales are derived from the questions: exhaustion (calculated based on 5 of these questions), cynicism (calculated based on 4 of these questions), and effectiveness at work (calculated based on 6 of these questions). In the annex, the 15 questions related to burnout are included.

For the study of self-compassion, we applied the same criteria, choosing a short scale for measuring self-compassion that is validated in Spanish (23). It is a questionnaire composed of 12 questions answered on a scale from 1 to 5, where 1 is almost never and 5 is almost always. From the total questions, six complementary sub-scales can be derived, pairing two by two. These are obtained by the weighted average of the two questions related to each of the 6 sub-scales, as follows: self-kindness -> self-judgment, common humanity -> isolation, and mindfulness -> over-identification.

With the intention of understanding the mental health status of the respondents, we included the following three questions: I am diagnosed with anxiety/depression, and I am undergoing treatment (psychological and/or pharmacological); currently, I am not diagnosed with anxiety/depression but feel that I need treatment; and when I experience anxiety/depression, I turn to substances such as benzodiazepines. The response was dichotomous: yes/no.

In addition, we included a series of demographic questions related to age, gender, habitat, or time dedicated to veterinary work. In total, the questionnaire consisted of 30 questions, detailed in the Annex.

The questionnaire was launched on October 17, 2023, disseminating through social networks and via email to the list of the College of Veterinarians of the Province of Las Palmas. It remained open until December 15, receiving a total of 141 responses.



4.2. Study population

We requested the following official data from the College of Veterinarians of Las Palmas: the total number of registered veterinarians, their date of birth, gender, and the date of registration. A total of 1,070 individuals were registered in November 2023. Of these, 665 were women (62.1%), and the average age of the series was 42.2 years (standard deviation = 10.6 years). Regarding the time dedicated to the profession, 58 had less than 1 year (5.4%), 282 had between 1 and 5 years (26.4%), 211 had between 5 and 10 years (19.7%), and 519 had more than 10 years registered with the Veterinary College (48.5%). A total of 141 individuals participated in the survey, representing 13.2% of the total registered veterinarians. Both the average age and the gender proportion, as well as the time since registration, were similar to the overall data, as can be deduced below.

Table 1 presents a descriptive analysis of demographic variables for a sample of 141 individuals. The gender distribution indicates that 27.7% are male and 72.3% are female. Regarding age, the mean is 39.6 years with a standard deviation of 10.4, and the median is 38 years with a range of 22 to 62 years. The majority of participants reside in Gran Canaria (84.9%), mainly in urban environments (88.7%). The distribution by year of graduation shows a higher representation of graduates in more recent decades, with 41.1% belonging to the 2010-2019 period. Concerning professional experience, 50.4% have over 10 years of practice, while 23.4% have been practicing for 1 to 5 years. These results provide a detailed overview of the demographic composition of the sample, highlighting gender representation, age distribution, graduation years, professional experience, and geographic characteristics.



Table 1. Descriptive analysis of the demographic variables (n = 141)						
Variable	Ν	(%)				
Gender						
Male	39	(27.7)				
Female	102	(72.3)				
Age (years)						
Mean ± SD	39.6 ± 10.4					
Median (range)	38 (22-62)					
Year of graduation						
1980-1989	5	(3.5)				
1990-1999	28	(19.0)				
2000-2009	31	(22.0)				
2010-2019	58	(41.1)				
2020-2023	19	(13.5)				
Time practicing the profession						
< 1 year	10	(7.1)				
1-5 years	33	(23.4)				
5-10 years	27	(19.1)				
> 10 years	71	(50.4)				
Time in the current position						
< 1 year	24	(17.0)				
1-5 years	49	(34.8)				
5-10 years	23	(16.3)				
> 10 years	45	(31.9)				
Island						
Gran Canaria	119	(84.9)				
Lanzarote	12	(8.5)				
Fuerteventura	10	(7.1)				
Habitat						
Urban	125	(88.7)				
Rural	16	(11.3)				

4.3. Statistical analysis

The data were exported into an Excel matrix and subsequently coded in IBM® SPSS® Statistics. A descriptive analysis of the variables was conducted based on their nature, considering means, standard deviation, median, and the 25th and 75th percentiles for



continuous variables, as well as frequencies for categorical variables. The normality of continuous variables was assessed using the Kolmogorov-Smirnov test.

Differences between means were explored using the t-test or ANOVA. For non-normally distributed continuous variables, non-parametric tests (Mann-Whitney U-test or Kruskal-Wallis test, as appropriate) were employed. Relationships between continuous variables were explored through bivariate correlation (Spearman rho), while differences between categorical variables were assessed using the Chi-square test in the context of contingency tables. Binary logistic regression analyses were conducted to determine the influence of different variables on the endpoints. Graphical representations were created using Excel or SPSS (Statistical Package for Social Sciences). We used PASW Statistics v 19.0 (SPSS Inc., Chicago, IL, USA) to manage the database of the study and to perform statistical analyses. Probability levels of < 0.05 (two tailed) were considered statistically significant.

5. RESULTS

5.1. Analysis of burnout syndrome in the study population

To assess the degree of burnout in the study population, a validated scale used by the Ministry of Labor and Social Affairs of the Government of Spain was employed (21, 22). *Table 2* provides a descriptive analysis of how individuals perceive their work situation based on responses to 15 items. Responses range from "Never" to "Always", with corresponding percentages. For instance, a notable finding is that 31.2% of participants reported feeling emotionally exhausted from their job (Q1) quite often, while 22.7% felt burned out from work almost always. Burnout at the end of a workday (Q2) and morning fatigue before facing work (Q3) are prevalent, with 25.5% and 22.7% reporting such feelings almost always and quite often, respectively. The stress associated with working all day (Q4) is acknowledged, with 19.1% regularly finding it stressful. The 23.4% of the series (n = 33) report being burned out always (Q6).

The analysis of questions Q8, Q9, Q13, and Q14 reveals key insights into participants' sentiments regarding job satisfaction and emotional well-being. Notably, 24.2% of respondents expressed a loss of interest in their job since starting their current position (Q8): 17 and 17 individuals responded "almost always" and "always", respectively, when asked about their loss of interest in work. Furthermore, 31.9% reported a diminishing enthusiasm for their job (Q9): 22 and 23 individuals responded "almost always" and "always", respectively,



when asked about their loss of enthusiasm in work; and 46.1% have become more cynical ("quite often", "almost always" and "always") about the usefulness of their work (Q13). Doubts regarding the significance and value of their work are expressed by 21.3% (Q14). These findings suggest a notable proportion of individuals experiencing diminished engagement, enthusiasm, and increased cynicism towards their work, underscoring potential challenges in maintaining job satisfaction and a positive professional outlook.

On a positive note, 47.5% believed they were good at their job almost always (Q10), and 39.0% expressed confidence in their effectiveness in getting things done at work almost always (Q15). However, there are concerns, as 44.0% reported contributing effectively to their organization almost always (Q7), indicating potential challenges in employee engagement. These insights may be valuable for addressing workplace well-being and productivity.

Table 2. Descriptive analysis about how the work situation is perceived (N, (%)).								
Item	Never	Rarely	Sometimes	Regularly	Quite often	Almost always	Always	
Q1	4 (2.8)	6 (4.3)	24 (17.0)	16 (11.3)	44 (31.2)	32 (22.7)	15 (10.6)	
Q2	2 (1.4)	7 (5.0)	20 (14.2)	19 (13.5)	34 (24.1)	36 (25.5)	23 (16.3)	
Q3	11 (7.8)	14 (9.9)	17 (12.1)	20 (14.2)	32 (22.7)	28 (19.9)	19 (13.5)	
Q4	6 (4.3)	18 (12.8)	21 (14.9)	26 (18.4)	27 (19.1)	19 (13.5)	24 (17.0)	
Q5	1 (0.7)	2 (1.4)	9 (6.4)	24 (17.0)	30 (21.3)	59 (41.8)	16 (11.3)	
Q6	8 (5.7)	12 (8.5)	16 (11.3)	19 (13.5)	27 (19.1)	26 (18.4)	33 (23.4)	
Q7	4 (2.8)	0	1 (0.7)	17 (12.1)	27 (19.1)	62 (44.0)	30 (21.3)	
Q8	25 (17.7)	25 (17.7)	18 (12.8)	18 (12.8)	21 (14.9)	17 (12.1)	17 (12.1)	
Q9	20 (14.2)	15 (10.6)	19 (13.5)	19 (13.5)	23 16.3)	22 (15.6)	23 (16.3)	
Q10	2 (1.4)	2 (1.4)	1 (0.7)	12 (8.5)	33 (23.4)	67 (47.5)	24 (17.0)	
Q11	5 (3.5)	2 (1.4)	10 (7.1)	18 (12.8)	23 (16.3)	33 (23.4)	50 (35.5)	
Q12	5 (3.5)	5 (3.5)	14 (9.9)	22 (15.6)	33 (23.4)	37 (26.2)	25 (17.7)	
Q13	21 (14.9)	16 (11.3)	12 (8.5)	27 (19.1)	19 (13.5)	27 (19.1)	19 (13.5)	
Q14	28 (19.9)	13 (9.2)	28 (19.9)	22 (15.6)	20 (14.2)	19 (13.5)	11 (7.8)	
Q15	3 (2.1)	5 (3.5)	6 (4.3)	20 (14.2)	33 (23.4)	55 (39.0)	19 (13.5)	

Q1: I am emotionally exhausted from my job.

Q2: I am 'burned out' at the end of a workday.

Q3: I am tired when I get up in the morning and have to face another day at work.

Q4: Working all day is stressful for me.

Q5: I can effectively solve problems that arise at work.

Q6: I am 'burned out' from work.

Q7: I contribute effectively to what my organization does.

Q8: I have lost interest in my job since I started in this position.

Q9: I have lost enthusiasm for my job.



Q10: In my opinion, I am good at my job.

Following the guidelines of <u>Schaufeli et al. (2000)</u>, the questionnaire items were grouped to obtain a single score for the three parameters considered in the survey: exhaustion (mean values from Q1, Q2, Q3, Q4, and Q6), cynicism (mean values from Q8, Q9, Q13, and Q14), and professional efficacy (mean values from Q5, Q7, Q10, Q11, Q12 and Q15). *Figure 1* depicts the results of the measures of exhaustion (A), cynicism (B), and professional efficacy (C) in the studied series. To enhance visualization, we included a color code in relation to normative values (<u>21</u>) to provide context to our results.



Figure 1. Box plots representing the distribution of scores in the studied population (n = 141) in relation to exhaustion (**A**), cynicism (**B**), and professional efficacy (**C**). The colored marks represent normative data according to the Good Practices Guide of the Ministry of Labor and Social Affairs of the Government of Spain (Ministerio de Trabajo y Asuntos Sociales, Gobierno de España. NTP 732: Síndrome de estar Quemado en el trabajo "Burnout" (III): instrumento de medición). The color scale refers to levels from very low to very high, with red indicating the worst score and blue indicating the best. Yellow represents the normative average (see details of score ranges in the text). The lines connect the medians, the boxes cover the 25th to 75th percentiles, and the minimal and maximal values are shown by the ends of the bars.

Table 3 provides a descriptive analysis of exhaustion, cynicism, and professional efficacy, comparing the data to normative distribution (N, %). The variables are categorized into very low, low, medium (low), medium (high), high, and very high levels based on normative data. The table allows for a comprehensive assessment of the participants' levels of burnout components in relation to established norms, offering valuable insights into potential areas for intervention or support. For exhaustion, 36.9% fall into the high category, exceeding the normative mean of 2.12, indicating a notable prevalence of elevated exhaustion levels. Similarly, cynicism sees 33.3% in the high category, surpassing the normative mean of 1.50. Regarding professional efficacy, 27.7% are categorized as medium (low), below the normative mean of 4.45. The mean values for exhaustion, cynicism, and efficacy were 3.69,

Q11: Achieving goals at work stimulates me.

Q12: I have accomplished many valuable things in this position.

Q13: I have become more cynical about the usefulness of my work. Q14: I doubt the significance and value of my work.

Q15: In my job, I am confident that I am effective in getting things done.



2.94, and 4.38, respectively, reflecting the overall trends in the sample. The standard deviations (SD) indicate the variability around the mean.

variables are included in relation to normative data.								
		Exhaustion (Normative data)*	Exhaustion	Cynicism (Normative data)*	Cynicism	Efficacy (Normative data)*	Efficacy	
Very low	> 5%	< 0.4	2 (1.4)	< 0.2	7 (5.0)	< 2.83	12 (8.5)	
Low	5-25%	0.5-1.2	10 (7.1)	0.3-0.5	8 (5.7)	2.83-3.83	20 (14.2)	
Medium (low)	25-50%	1.3-2.0	10 (7.1)	0.6-1.24	9 (6.4)	3.84-4.50	39 (27.7)	
Medium (high)	50-75%	2.1-2.8	19 (13.5)	1.25-2.25	29 (20.6)	4.51-5.16	38 (27.0)	
High	7595%	2.9-4.5	52 (36.9)	2.26-4.0	47 (33.3)	5.17-5.83	32 (22.7)	
Very high	> 95%	> 4.5	48 (34.0)	> 4.0	41 (29.1)	> 5.83	0	
Mean		2.12	3.69	1.50	2.94	4.45	4.38	
SD		1.23	1.49	1.30	1.66	0.9	0.89	

Table 3. Descriptive analysis of the level of exhaustion, cynicism, and professional efficacy in relation to the normative distribution of the data (N, $\binom{9}{10}$). The mean and standard distribution (SD) of the series

Table 4 presents a comprehensive analysis of demographic factors associated with exhaustion, cynicism, and work efficacy. Mean values \pm SD and medians (p25th – p75th) are provided for each factor, along with p-values indicating statistical significance. Statistically significant differences were observed in burnout components based on various demographic factors. Females exhibited higher levels of exhaustion (3.8 ± 1.5) and cynicism (3.0 ± 1.6) compared to males (exhaustion: 3.3 ± 1.5 , cynicism: 2.8 ± 1.8), although the differences were not statistically significant. Graduation year significantly influenced exhaustion and cynicism, with those graduating between 2010-2019 reporting higher exhaustion and cynicism (P =0.001 and P = 0.008, respectively). Island and habitat differences were noted, particularly participants from Lanzarote displaying higher levels of exhaustion, cynicism, and lower efficacy. However, the result related to cynicism was the only one that reached statistical significance (P = 0.014). Veterinarians practicing in urban environments exhibited higher levels of exhaustion than those working in rural settings (3.8 vs. 2.9, respectively; P = 0.025).

	Exhaustion*		Суг	Cynicism*		Efficacy**	
	Mean ± SD	Median (p ^{25th} – p ^{75th})	Mean ± SD	Median (p ^{25th} – p ^{75th})	Mean ± SD	Median (p ^{25th} – p ^{75th})	
Gender							
Male	3.3 ± 1.5	3.4 (2.2-4.4)	2.8 ± 1.8	2.5 (1.2-4.5)	4.5 ± 0.7	4.7 (4.0-5.0)	
Female	3.8 ± 1.5	4.2 (2.9-5.0)	3.0 ± 1.6	3.0 (1.9-4.2)	4.3 ± 0.9	4.5 (3.8-5.0)	
P value	ns	NA	ns	NA	NA	ns	
Year of graduation							
1980 – 1989	3.4 ± 1.4	3.6 (2.1-4.7)	3.3 ± 1.9	3.5 (1.5-5.0)	4.3 ± 1.2	4.7 (3.1-5.2)	
1990 – 1999	2.8 ± 1.3	2.9 (1.4-3.4)	2.0 ± 1.6	1.5 (0.8-3.2)	4.6 ± 0.8	4.8 (4.2-5.2)	
2000 – 2009	4.0 ± 1.5	4.0 (3.0-5.6)	2.8 ± 1.6	2.7 (2.0-3.8)	4.6 ± 0.6	4.7 (4.2-5.2)	
2010 – 2019	4.1 ± 1.3	4.2 (3.2-5.0)	3.3 ± 1.6	3.2 (2.2-4.8)	4.3 ± 0.9	4.5 (4.0-5.0)	
2020 – 2023	3.4 ± 1.8	3.8 (1.4-4.8)	3.2 ± 1.7	3.0 (2.0-4.5)	3.9 ± 1.2	4.2 (2.8-4.8)	
P value	0.001	NA	0.008	NA	NA	ns	
Island							
Gran Canaria	3.6 ± 1.5	3.8 (2.6-4.8)	2.8 ± 1.7	2.8 (1.5-4.3)	4.4 ± 0.8	4.7 (4.0-5.0)	
Lanzarote	4.4 ± 1.0	4.1 (3.6-5.0)	4.2 ± 1.3	4.2 (3.3-5.2)	3.7 ± 1.2	3.8 (2.7-4.6)	
Fuerteventura	3.9 ± 1.2	4.1 (3.1-5.0)	2.4 ± 1.4	2.9 (0.9-3.7)	4.5 ± 1.1	4.4 (3.5-5.5)	
P value	ns	NA	0.014	NA	NA	ns	
Habitat							
Urban	3.8 ± 1.4	4.0 (2.8-4.8)	3.0 ± 1.6	3.0 (2.0-4.2)	4.3 ± 0.9	4.5 (4.0-5.0)	
Rural	2.9 ± 1.6	2.8 (1.2-4.2)	2.2 ± 1.8	1.7 (0.8-3.9)	4.6 ± 0.6	4.6 (4.2-5.1)	
P value	0.025	NA	ns	NA	NA	ns	
Years in practice							
< 1	2.8 ± 2.0	2.2 (1.1-4.9)	2.9 ± 1.8	2.9 (1.4-4.6)	3.9 ± 1.3	4.2 (2.4-4.9)	
1-5	4.2 ± 1.2	4.4 (3.3-5.0)	3.5 ± 1.5	3.2 (2.4-5.0)	4.2 ± 0.9	4.5 (3.9-4.8)	
5-10	3.9 ± 1.3	4.2 (3.0-5.0)	3.1 ± 1.6	3.5 (1.8-4.5)	4.4 ± 0.7	4.5 (4.0-5.0)	
> 10	3.5 ± 1.5	3.4 (2.4-4.8)	2.6 ± 1.7	2.5 (1.2-3.7)	4.5 ± 0.9	4.7 (4.0-5.2)	
P value	0.021	NA	0.044	NA	NA	Ns	
Current job (years)							
< 1	3.9 ± 1.8	4.5 (2.2-5.4)	3.3 ± 1.6	3.0 (2.1-4.5)	4.0 ± 1.2	4.3 (3.0-4.9)	
1-5	3.7 ± 1.3	3.8 (2.9-4.7)	3.2 ± 1.7	3.2 (2.0-4.9)	4.3 ± 0.7	4.5 (4.0-4.8)	
5-10	3.8 ± 1.6	4.2 (2.6-5.0)	3.2 ± 1.5	3.5 (2.7-4.0)	4.4 ± 0.9	4.7 (4.2-5.2)	
> 10	3.5 ± 1.5	3.4 (2.7-4.7)	2.3 ± 1.7	2.0 (0.9-3.6)	4.6 ± 0.8	4.7 (4.1-5.2)	
P value	ns	NA	0.028	NA	NA	ns	

Table 4. Demographic factors associated with exhaustion, cynicism, and work efficacy.

Abbreviations: SD, standard deviation; $p^{25th} - p^{75th}$, percentiles 25 and 75 of the distribution; ns, non-significant; NA, not applicable.

Regarding years in practice and current job years, practitioners with 1-5 years experienced elevated exhaustion (P = 0.021) and cynicism (P = 0.044), while longer job tenure (> 10 years) correlated with lower cynicism (P = 0.028) and higher efficacy. We did not find any demographic variables statistically associated with work efficacy.

Due to its nature (continuous variable), age was studied separately. *Figure 2* displays the results related to age and the degree of exhaustion (A), cynicism (B), and work efficacy (C). We observe a negative correlation with cynicism (Spearman rho = -0.207, *P* value = 0.014) and a positive correlation with work efficacy (Spearman rho = 0.178, *P* value = 0.034). This means that, with increasing age, cynicism decreases and self-perceived work efficacy increases.



Figure 2. Bivariate correlations between age and the level of exhaustion (**A**), cynicism (**B**), and professional efficacy (**C**). Spearman's rank correlation test was used, yielding the following results: A, Spearman rho = -0.155, *P* value = 0.067; B, Spearman rho = -0.207, *P* value = 0.014; C, Spearman rho = 0.178, *P* value = 0.034.

These statistically significant associations emphasize the importance of considering demographic factors in understanding and addressing burnout among the study participants.

<u>*Table 5*</u> presents the univariate analysis using binary logistic regression (Exp(B), CI 95%) revealed significant associations between demographic factors and burnout components. Females showed a trend towards higher exhaustion (Exp(B) = 2.054, CI 95%: 0.79-5.28), but the association was not statistically significant. Age exhibited a significant negative association with cynicism (Exp(B) = 0.946, CI 95%: 0.91-0.99), suggesting that as age increases, cynicism tends to decrease (P = 0.013). Practitioners in rural areas had a significantly lower likelihood of exhaustion (Exp(B) = 0.346, CI 95%: 0.11-0.12), but the association was not statistically significant (P = 0.077).

^{*} Variables normally distributed (Kolmogorov-Smirnov test, p > 0.05); p values were calculated using the Student's t-test or the ANOVA test.

^{**} Variable non-normally distributed (Kolmogorov-Smirnov test, *p* = 0.012); p values were calculated using the Mann-Whitney U test or Kruskal-Wallis test.



Practitioners with 1-5 years (Exp(B) = 15.50, CI 95%: 2.64-102.8) and 5-10 years (Exp(B) = 12.50, CI 95%: 1.87-83.6) of experience had significantly higher odds of exhaustion compared to those with less than 1 year (P = 0.005 and P = 0.009, respectively). Also, those practicing for more than 10 years had significantly higher odds of exhaustion (Exp(B) = 4.462, CI 95%: 1.13-17.7; P = 0.033). Finally, veterinarians with over 10 years in their current job had significantly higher odds of efficacy (Exp(B) = 3.294, CI 95%: 1.16-9.33; P = 0.025); compared to those with less than 1 year.

	E	chaustion	C	/nicism	Efficacy	
	Exp(B)	CI (95%)	Exp(B)	CI (95%)	Exp(B)	CI (95%)
Gender						
Male	#Ref.		#Ref.		#Ref.	
Female	2.054	(0.79-5.28)	1.094	(0.41-2.88)	0.792	(0.38-1.66)
Age ⁽²⁾	0.984	(0.94-1.03)	0.946	(0.91-0.99) *	1.031	(0.99-1.06)
Habitat						
Urban	#Ref.		#Ref.		#Ref.	
Rural	0.346	(0.11-0.12)	0.394	(0.12-1.26)	1.016	(0.36-2.88)
Years in practice						
< 1	#Ref.		#Ref.		#Ref.	
1-5	15.50	(2.64-102.8) **	1.111	(0.10-12.1)	0.857	(0.20-3.66)
5-10	12.50	(1.87-83.6) **	0.489	(0.05-4.79)	1.031	(0.23-4.53)
> 10	4.462	(1.13-17.7) *	0.415	(0.05-3.53)	2.304	(0.59-8.90)
Current job (years)						
< 1	#Ref.		#Ref.		#Ref.	
1-5	2.316	(0.60-8.94)	0.545	(0.10-2.85)	1.630	(0.59-4.51)
5-10	1.250	(0.29-5.38)	0.606	(0.09-4.01)	2.182	(0.67-7.09)
> 10	1.217	(0.35-4.23)	0.250	(0.05-1.23)	3.294	(1.16-9.33) *

Table 5. Univariate analysis of demographic risk factors associated with exhaustion, cynicism, and work efficacy. *P* values were calculated using binary logistic regression ⁽¹⁾.

Abbreviations: CI (95%), confidence interval (95%); #Ref, reference category.

⁽¹⁾ The level of exhaustion, cynicism, and efficacy was dichotomized to perform binary logistic regression: in one group, the levels ranged from very low to medium (low), and in the other group, the levels ranged from medium (high) to very high. ⁽²⁾ Introduced as a continuous variable.

* *P* < 0.05; ** *P* < 0.01.

These findings underscore the importance of demographic factors in understanding burnout risk, offering insights for targeted interventions and support strategies.

5.2. Analysis of Self-Compassion in the study population

For the study of self-compassion, a validated scale of 12 questions was used (23). *Table 6* presents the distribution of responses for each item in the Self-Compassion Scale (SCS), where higher scores indicate worse perceptions for items related with self-judgment (Q11 and Q12), isolation (Q4 and Q8) and over-identification (Q1 and Q9), and better perceptions for items related with self-kindness (Q2 and Q6), common humanity (Q5 and Q10), and mindfulness (Q3 and Q7). The findings reveal diverse perspectives on self-compassion, with a prevalent trend toward choosing "Quite often" and "Almost always", reflecting a propensity for positive self-compassionate attitudes for the latter set of questions. Notably, items Q6 and Q8 stand out with a higher frequency of choosing negative responses, indicating a lower inclination toward self-care and an induced sense of feeling alone in the face of failure. Items Q9, Q11, and Q12 highlight potential areas for improvement, with a higher frequency of choosing responses suggesting a tendency to obsess over negative feelings and be critical of one's flaws.

Table 6.	Table 6. Descriptive analysis of the Self-Compassion Scale (N, (%))							
ltem	Rarely	Sometime s	Regularly	Quite often	Almost always			
Q1	7 (5.0)	11 (7.8)	13 (9.2)	35 (24.8)	75 (53.2)			
Q2	11 (7.8)	18 (12.8)	40 (28.4)	46 (32.6)	26 (18.4)			
Q3	7 (5.0)	29 (20.6)	30 (21.3)	43 (30.5)	32 (22.7)			
Q4	34 (24.1)	24 (17.0)	23 (16.3)	29 (20.6)	31 (22.0)			
Q5	10 (7.1)	26 (18.7)	48 (34.0)	32 (22.7)	25 (17.7)			
Q6	35 (24.8)	38 (27.0)	34 (24.1)	22 (15.6)	12 (8.5)			
Q7	11 (7.8)	30 (21.3)	45 (31.9)	33 (23.4)	22 (15.6)			
Q8	12 (8.5)	12 (8.5)	19 (13.5)	47 (33.3)	51 (36.2)			
Q9	19 (13.5)	21 (14.9)	27 (19.1)	32 (22.7)	42 (29.8)			
Q10	23 (16.3)	39 (27.7)	46 (32.6)	24 (17.0)	9 (6.4)			
Q11	7 (5.0)	19 (13.5)	35 (24.8)	48 (34.0)	32 (22.7)			
Q12	18 (12.8)	31 (22.0)	42 (29.8)	34 (24.1)	16 (11.3)			

Q1: When I fail at something important to me, feelings of inefficacy consume me.

Q2: I try to be understanding and patient with aspects of my personality that I don't like.

Q3: When something painful happens to me, I try to maintain a balanced view of the situation.

Q4: When I'm feeling down, I tend to think that most people are probably happier than me.

Q5: I try to see my flaws as part of the human condition.

Q6: When I'm truly struggling, I give myself the care and affection I need.



Q7: When something upsets me, I try to keep my emotions in balance.
Q8: When I fail at something important to me, I tend to feel alone in my failure.
Q9: When I'm feeling down, I tend to obsess and focus on everything that's going wrong.
Q10: When I feel inadequate in some way, I try to remind myself that almost everyone shares feelings of inadequacy.
Q11: I disapprove of my own flaws and shortcomings and am critical of them.
Q12: I am intolerant and impatient with aspects of my personality that I don't like.

Considering the grouping of the 12 items into 6 subscales, we conducted a comparison with the normative values reported in the literature ($\underline{23}$). For the calculation of the overall self-compassion score, the procedure was carried out as indicated in the specialized literature ($\underline{23}$).

For the proper interpretation of the results, it should be considered that being above normative values for the self-kindness, common humanity, and mindfulness subscales is positive, while being above normative values for the self-judgment, isolation, and over-identification subscales is negative. *Table 7* compares the descriptive analysis of the Self-Compassion Scale in the current study series with normative data. In the present series, the overall self-compassion score is slightly lower (16.83 \pm 4.67) compared to the normative data (16.89 \pm 3.46). Notably, the scores for self-judgment (3.28 \pm 0.98), isolation (3.40 \pm 1.15), and over-identification (3.77 \pm 1.17) are higher than the normative values, indicating a potential inclination towards self-critical thoughts, increased feelings of isolation, and a stronger tendency to over-identify with negative emotions in the current study population.

	Normative data*	Present series	
	N = 271	N = 141	
	Mean ± SD	Mean ± SD	
Overall self-compassion score	16.89 ± 3.46	16.83 ± 4.67	
Self-kindness	2.94 ± 0.71	2.99 ± 0.99	
Self-judgment	2.91 ± 0.65	3.28 ± 0.98	
Common humanity	3.12 ± 0.73	2.97 ± 0.88	
Isolation	2.67 ± 0.61	3.40 ± 1.15	
Mindfulness	2.95 ± 0.68	3.32 ± 1.03	
Over-identification	2.91 ± 0.83	3.77 ± 1.17	

Table 7. Descriptive analysis of the Self-Compassion Scale in the present series in relation to the normative distribution of the data. The mean and standard deviation (SD) are included.

* Data reported by García-Campayo et al. Health and Quality of Life Outcomes 2014, 12:4.

Subscales were calculated as follows: self-kindness, mean value of Q2 and Q6; self-judgment, mean value of Q11 and Q12; common humanity, mean value of Q5 and Q10; isolation, mean value of Q4 and Q8; mindfulness, mean value of Q3 and Q7;



and over-identification, mean value of Q1 and Q9. Overall self-compassion scores were calculated after reverse coding the self-judgment, isolation and over-identification items, followed by the summation of the six subscales means.

Next, we wanted to study which demographic variables were associated with self-compassion and its 6 derived scales (Table 8). Females showed a lower score on the common humanity scale and a higher score on the over-identification scale compared to males (3.0 vs. 3.5, P =0.033 and 4.0 vs. 3.5, P = 0.033, respectively). This indicates lower self-compassion and a higher degree of self-demandingness among women. The year of graduation is a variable directly associated with the participant's age and was the variable with the most significant associations. Briefly, recent graduates (2020-2023) reported higher scores in isolation and over-identification (P = 0.039 and P = 0.016). Although the trend was not linear, the same tendency was observed in relation to common humanity. In this case, recent graduates showed low scores indicating intolerance towards their failures and flaws (P = 0.025). The total self-compassion score among those who graduated in the last 4 years was the lowest, and the result was also significant (P = 0.005). These results align with those derived from the bivariate correlations considering age as a continuous variable. Thus, age was positively associated with self-compassion (Spearman rho = 0.306, P < 0.001). Regarding sub-scales, we observed a significant positive correlation with self-kindness (Spearman rho = 0.189, P =0.024), common humanity (Spearman rho = 0.207, P = 0.014), and mindfulness (Spearman rho = 0.196, P = 0.020). In contrast, there was a negative correlation with isolation (Spearman rho = -0.315, P < 0.001) and over-identification (Spearman rho = -0.278, P = 0.001). Taken together, these results highlight the vulnerability of younger veterinarians.

In the same vein, participants with less work experience (less than 1 year) and those who had been in their current position for a shorter time (less than 1 year) showed the highest scores in isolation (P = 0.034 and P = 0.028). The number of years practicing was associated with over-identification, with higher scores in those who had been working for 5 or fewer years (P = 0.037). These results emphasize youth and inexperience as key factors in an individual's self-compassion and opens the debate about the social tools of the new generations and their capabilities for teamwork and support in the social context.

	Self- compassion	Self- kindness	Self- judgment	Common humanity	Isolation	Mindfulness	Over- identification
	Mean ± SD	Mean ± SD	Median (p75th-p25th)	Median (p75th-p25th)	Median (p75th-p25th)	Mean ± SD	Median (p75th-p25th)
Gender							
Male				3.5 (2.5 - 3.5)			3.5 (2.5 - 5.5)
Female				3.0 (2.0 - 3.5)			4.0 (3.5 - 5.0)
P value	ns	ns	ns	0.033	ns	ns	0.033
Year of graduation							
1980 - 1989	18.60 ± 2.75			3.0 (3.0 - 3.25)	3.0 (2.5 - 3.5)		3.5 (2.5 - 4.5)
1990 - 1999	19.64 ± 4.86			2.5 (2.0 – 3.5)	3.5 (2.5 – 4.0)		3.25 (2.0 - 4.0)
2000 - 2009	15.98 ± 4.15			2.5 (2.0 - 3.5)	3.5 (2.5 - 4.0)		4.0 (3.0 - 5.0)
2010 - 2019	16.26 ± 4.47			3.0 (2.38 - 3.5)	3.5 (3.0 - 4.5)		4.5 (3.5 - 5.0)
2020 - 2023	15.37 ± 4.82			2.5 (2.0 – 3.5)	4.5 (3.5 - 4.5)		4.5 (3.5 - 5.0)
P value	0.005	ns	ns	0.025	0.039	ns	0.016
Island							
Gran Canaria							4.0 (3.0 - 4.5)
Lanzarote							5.0 (4.5 - 5.0)
Fuerteventura							4.25 (2.25 - 5.0)
P value	ns	ns	ns	ns	ns	ns	0.013
Habitat							
Urban							
Rural							
P value	ns	ns	ns	ns	ns	ns	ns
Years in practice							
< 1					4.5 (3.88 - 4.63)		4.25 (3.5 – 5.0)
1 – 5					3.5 (3.0 - 4.5)		4.5 (4.0 – 5.0)
5 - 10					3.5 (3.0 - 4.0)		3.5 (2.5 - 4.5)
> 10					3.0 (2.5 - 4.0)		3.5 (3.0 - 4.5)
P value	ns	ns	ns	ns	0.034	ns	0.037
Current job (years)							
< 1					4.0 (3.5 - 4.5)		
1 – 5					3.5 (2.75 - 4.5)		
5 - 10					3.5 (2.5 - 4.0)		
> 10					3.0 (2.5 - 4.25)		
P value	ns	ns	ns	ns	0.028	ns	ns

Table 8. Demographic factors associated with Self-compassion and the 6 subscales that compose it. Mean ± standard deviation (SD) was included for the description of normally distributed variables; median and the percentiles 25th and 75th of the distribution was included for the description of non-normally distributed variables. Student's t test or Kruskal-Wallis test were used based on each pair of variables to be compared. Only the significant associations have been represented.

Abbreviations: ns, non-significant.

Finally, veterinarians practicing in Lanzarote showed higher scores in over-identification (5.0, P = 0.013), complementing what was observed regarding the burnout scale. Although the



responder size from that island is low (n = 12), the consistency of the results suggests that this subpopulation should be studied more carefully.

Table 9 presents a univariate analysis of demographic factors associated with self-compassion, with p-values calculated using binary logistic regression. It was observed that the female gender had a significant association with a lower likelihood of self-compassion, represented by an Exp(B) of 0.336 and a 95% confidence interval (95% CI) of 0.15 to 0.74 (P value < 0.01). Additionally, age also showed a significant association, where an increase in age was related to a higher likelihood of self-compassion, with an Exp(B) of 1.072 and a 95% CI of 1.03 to 1.11 (P value < 0.001). Regarding habitat, individuals in rural environments exhibited a significant association with a higher likelihood of self-compassion, with an Exp(B) of 3.167 and a 95% CI of 1.09 to 9.16 (*P* value < 0.05). Concerning current job experience, those with 5-10 years and more than 10 years of experience showed significant associations with a higher likelihood of self-compassion, with Exp(B) values of 12.267 and 13.964, respectively, and both with 95% CI that did not included 1, suggesting statistical significance and P values < 0.05 in both cases.

Table 9. Univariate analysis of demographic risk factorsassociated with Self-compassion. P values werecalculated using binary logistic regression ⁽¹⁾ .					
	Exp(B)	CI (95%)			
Gender					
Male	#Ref.				
Female	0.336	(0.15-0.74) **			
Age ⁽²⁾	1.072	(1.03-1.11) ***			
Habitat					
Urban	#Ref.				
Rural	3.167	(1.09-9.16) *			
Current job (years)					
< 1	#Ref.				
1-5	7.459	(0.91-61.2)			
5-10	12.267	(1.39-108.3) *			
> 10	13.964	(1.73-112.9) *			

Abbreviations: CI (95%), confidence interval (95%); #Ref, reference category. ⁽¹⁾ Self-compassion was dichotomized according to the percentile 75th of the distribution (score \geq 20).



⁽²⁾ Introduced as a continuous variable. * P < 0.05; ** P < 0.01.

Finally, we wanted to explore the relationship between burnout and self-compassion. *Table 10* revealed significant bivariate correlations between burnout syndrome and self-compassion along with its subscales.

The key findings included negative correlations between self-compassion and burnout components (exhaustion, cynicism), indicating that higher levels of self-compassion are associated with lower levels of burnout. Specifically, self-kindness, common humanity, and mindfulness showed negative correlations with burnout, supporting the idea that these self-compassion components are linked to reduced burnout. On the other hand, self-judgment, isolation and over-identification exhibit positive correlations with burnout, suggesting that higher levels of these self-compassion aspects are associated with increased burnout.

Moreover, the correlation analysis indicated a positive association between professional efficacy and self-compassion, particularly with the subscales of self-kindness, common humanity and mindfulness. This suggests that individuals with higher levels of mindfulness, self-kindness and recognition of common humanity may also experience higher levels of professional efficacy. On the contrary, work efficacy was lower as the scores related to self-judgment, isolation, and self-identification increased. These nuanced relationships shed light on the potential protective role of specific facets of self-compassion in mitigating burnout and fostering professional efficacy among the participants.

		Exhaustion	Cynicism	Professional efficacy
Self-Compassion	Spearman's rho	-0.567	-0.466	0.343
	P value	< 0.001	< 0.001	< 0.001
Self-kindness	Spearman's rho	-0.368	-0.306	0.273
	P value	< 0.001	< 0.001	0.001
Self-judgment	Spearman's rho	0.389	0.322	-0.196
	P value	< 0.001	< 0.001	0.020
Common humanity	Spearman's rho	-0.294	-0.205	0.236
	P value	< 0.001	0.015	0.005
Isolation	Spearman's rho	0.534	0.533	-0.278

Table 10. Bivariate correlations between the representative scales of burnout syndrome (exhaustion, cynicism, and work efficacy) and the self-compassion scale and its 6 subscales. Spearman's correlation test was used for statistical calculation.



	P value	< 0.001	< 0.001	0.001
Mindfulness	Spearman's rho	-0.363	-0.268	0.369
	P value	< 0.001	0.001	< 0.001
Over-identification	Spearman's rho	0.587	0.458	-0.245
	P value	< 0.001	< 0.001	0.003

5.3. Demographic factors associated with mental health and their relationship with burnout syndrome and self-compassion

A total of 28 participants (19.8%) reported being diagnosed with anxiety/depression, although 45 (31.9%) responded not being diagnosed but believing they needed it (*Table 11*). On the other hand, 14 individuals not diagnosed with anxiety/depression reported taking benzodiazepines, a similar figure to those diagnosed who take this type of medication (n =13). However, the majority of respondents reported not using anxiolytics (n = 114, 80.5%). It is worth noting that the distribution was statistically different (P < 0.001).

depression (N, (%))			
	Diagnosis of anx psychological trea	tiety/depression and /pharmacological atment	
	Νο	Yes	P value*
No diagnosis but in need of treatment			0.258
No	74 (65.5)	22 (78.6)	
Yes	39 (34.5)	6 (21.4)	
	113	28	
Taking benzodiazepines			
No	99 (87.6)	15 (53.6)	< 0.001
Yes	14 (12.4)	13 (46.4)	
	113	28	

Table 11 Contingency table showing variables associated with anxiety and

* Chi square test.

We wanted to explore which demographic variables were associated with parameters related to anxiety/depression (Table 12). Firstly, we observed that women expressed a greater need for psychological assistance (39 out of 102 women = 38.2%) compared to men (6 out of 39 men = 15.4%) (P = 0.009).



Secondly, the highest proportion of anxiety diagnoses was observed among veterinarians in Lanzarote (6 out of 12 = 50%), a percentage higher than those observed for the islands of Gran Canaria (19 out of 100 = 16.0%) and Fuerteventura (3 out of 10 = 30%), with these differences being significant (P = 0.013). However, it was among veterinarians in Fuerteventura that a higher prevalence of benzodiazepine use was observed (50%) (P =0.011).

The habitat seemed to exert some influence, as veterinarians practicing in urban environments reported a higher need for psychological/pharmacological treatment for anxiety/depression: 35.2 vs. 6.3%, respectively (P = 0.021).

Thirdly, years of experience and time worked in the current position influenced the perception of the need for treatment for anxiety/depression. Specifically, the percentage decreased from 60 to 21% for veterinarians who have been working for less than 1 year and more than 10 years, respectively (P = 0.024); and it decreased from 54.2 to 15.0% for veterinarians who have been working for less than 1 year or more than 10 years in their current position, respectively (P = 0.010). This observation is reinforced by what was observed regarding age. In this regard, we observed that the median age in relation to the subjective feeling of needing psychological/therapeutic support against undiagnosed anxiety/depression was significantly lower than that of those veterinarians who reported not needing help: 34 vs. 40 years, respectively (P = 0.002).

scales. Data express the number (N) of participants within each subcategory.							
	Diagno anxiety/de	Diagnosis of anxiety/depression		Need for treatment		Consume of benzodiazepines	
	No	Yes	No	Yes	No	Yes	
Gender							
Male	34	5	33	6	32	7	
Female	79	23	63	39	82	20	
P value	ns		0.009		ns		
Age	38 (31-48)	37 (31-51)	40 (32-51)	34 (29-41)	37 (31-48)	40 (32-51)	
P value	ns		0.002		ns		
Year of graduation							

Diagnosis of	Need for	Consums of
scales. Data express the number (N) of pa	articipants within each	n subcategory.
Table 12. Association between anxiety/d	epression and burno	ut and self-compassion

							/
1980-1989	5	0	5	0	3	2	
1990-1999	20	8	24	4	22	6	
2000-2009	29	2	21	10	25	6	
2010-2019	45	13	36	22	47	11	
2020-2023	14	5	10	9	17	2	
P value	ns		ns		ns		
Island							
Gran Canaria	100	19	81	38	101	18	
Lanzarote	6	6	7	5	8	4	
Fuerteventura	7	3	8	2	5	5	
P value	0.013		ns		0.011		
Habitat							
Urban	99	26	81	44	100	25	
Rural	14	2	15	1	14	2	
P value	ns		0.021		ns		
Years in practice							
< 1	7	3	4	6	8	2	
1-5	26	7	19	14	27	6	
5-10	21	6	17	10	25	2	
> 10	59	12	56	15	54	17	
P value	ns		0.024		ns		
Current job							

P value ns Abbreviations: ns, non-significant.

20

38

15

40

< 1 1-5 5-10 > 10 P value Current job (years) < 1

1-5

5-10

> 10

P values were calculated with the Chi square test, except for age, expressed as median and the percentiles 25th – 75th, Mann-Whitney U-test (variable non-normally distributed).

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Finally, we explored the possible relationship between parameters associated with anxiety/depression with those of burnout and self-compassion. The association between anxiety/depression, burnout, and self-compassion scales was analyzed, and results are showed in Table 13. Individuals diagnosed with anxiety/depression demonstrated higher levels of exhaustion $(4.2 \pm 1.3, P < 0.05)$ and cynicism $(3.6 \pm 1.5, P < 0.05)$ compared to those without the diagnosis. They also reported lower self-compassion (14.5 \pm 4.8, P < 0.01) and

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38

0.010

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ns

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11



self-kindness (2.6 \pm 1.1, P < 0.05). Moreover, individuals consuming benzodiazepines exhibited elevated levels of exhaustion (4.2 \pm 1.1, P < 0.05), cynicism (3.5 \pm 1.5, P < 0.05).

Isolation was higher in those diagnosed (4.3 vs. 3.5, P < 0.01) and those needed for diagnosis (4.0 vs. 3.0, P < 0.001); a profile similar to that observed in relation to over-identification (*Table 13*).

Table 13. Association between anxiety/depression and burnout and self-compassion scales.						
	Diagnosis of anxiety/depression		Need for treatment		Consume of benzodiazepines	
	No	Yes	No	Yes	No	Yes
Exhaustion ⁽¹⁾	3.6 ± 1.5	4.2 ± 1.3 *	3.4 ± 1.4	4.3 ± 1.5 ***	3.6 ± 1.6	4.2 ± 1.1 *
Cynicism ⁽¹⁾	2.8 ± 1.7	3.6 ± 1.5 *	2.7 ± 1.6	3.4 ± 1.6 *	2.8 ± 1.7	3.5 ± 1.5 *
Efficacy ⁽²⁾	4.7 (4.0-5.1)	4.3 (3.5-4.7)	4.7 (4.0-5.0)	4.5 (3.9 – 4.9)	4.7 (4.1-5.0)	4.2 (3.5-5.0)
Self-compassion ⁽¹⁾	17.4 ± 4.5	14.5 ± 4.8 **	17.9 ± 4.7	14.5 ± 3.7 ***	17.0 ± 4.8	15.9 ± 4.2
Self-kindness ⁽¹⁾	3.1 ± 0.9	2.6 ± 1.1 *	3.1 ± 1.0	2.6 ± 0.8 **	3.0 ± 1.0	2.9 ± 1.1
Self-judgment ⁽²⁾	3.0 (2.5-4.0)	3.5 (3.0-4.9) *	3.0 (2.5-4.0)	3.5 (3.0-4.0)	3.5 (2.5-4.0)	3.0 (3.0-4.0)
Common humanity (2)	3.0 (2.5-3.5)	2.5 (2.0-3.0) **	3.0 (2.5-3.5)	2.5 (2.0-3.2) **	3.0 (2.5-3.5)	2.5 (2.0-3.5)
Isolation ⁽²⁾	3.5 (2.5-4.0)	4.3 (3.5-4.5) **	3.0 (2.5-4.0)	4.0 (3.5-4.7) ***	3.5 (2.5-4.5)	3.5 (3.0-4.5)
Mindfulness ⁽¹⁾	3.4 ± 1.1	3.1 ± 0.8	3.5 ± 0.9	2.9 ± 1.0 ***	3.3 ± 1.0	3.1 ± 1.1
Over-identification ⁽²⁾	4.0 (3.0-4.5)	4.5 (3.1-5.0) *	3.5 (2.5-4.5)	4.5 (3.8-5.0) ***	4.0 (3.0-5.0)	4.5 (3.5-5.0)

⁽¹⁾ Variables normally distributed: Student's t test. Data expressed as mean ± standard deviation.

⁽²⁾ Variables non-normally distributed: Mann Whitney U-test. Data expressed as median and percentiles 25th and 75th of the distribution.

* *P* value < 0.05; ** *P* value < 0.01; *** *P* value < 0.001.

These findings suggest a negative impact of anxiety/depression on burnout and self-compassion, particularly in exhaustion, cynicism, self-compassion, and isolation. The use of benzodiazepines is associated with higher burnout levels.

R

6. DISCUSSION

Firstly, it is acknowledged that burnout is a consequence of prolonged stress stemming from unfavorable working conditions (such us the gender wage gap, as well as the absence of conciliation and challenges in reconciling family and work responsibilities represent salient issues, 24), contributing to 8% of work-related illnesses which is more common among professionals dedicated to the care of patients, particularly when significant interpersonal relationships develop. It can be explained by the strong emotional connection combined with a deep personal involvement in patient care (25).

Likewise, despite being frequently mentioned, the concept is not new, and unfortunately, there have not been significant changes; because currently, the results are still overwhelming. Therefore, as a groundbreaking development, we encounter a pioneering initiative being launched by the Council of Veterinarians of Catalonia aimed at enhancing the emotional well-being of veterinary students in Spain, centering on establishing the groundwork for fostering a professional, dignified, healthy, and high-quality environment for the future development of young university students (29).

Although one might initially think of the medical profession (mainly doctors and nurses), veterinarians are not only affected but are also one of the most exposed professions. When burnout syndrome arises, it may manifest alongside diminished self-compassion, as well as symptoms of anxiety, depression and an increased risk of initiating the use of addictive and alienating drugs such as benzodiazepines. However, many individuals remain non-medicated or are not medicated appropriately, resulting in a psychological impact that is rarely resolved autonomously. In the specific case of veterinarians, it should be acknowledged that the



prevailing perception of clinical veterinarians often portrays them as individuals driven by vocation, deriving satisfaction from animal care, interpersonal interactions, and the pursuit of making this their way of life. However, the present-day actuality diverges significantly (26). Consequently, it might be worthwhile to reconsider the following question: How can veterinary schools integrate wellness and resilience programs into their curriculum to prepare students for the emotional challenges inherent in the profession? In the light of existing observational studies, this question is of vital importance and, to date, is not even remotely addressed.

This issue impacts a significant portion of veterinarians globally, as evidenced by studies conducted in Spain (in this study they incorporate a comparison between the burnout levels experienced by small animal veterinarians and those experienced by large animal veterinarians) (6), Korea (even though the study focused on veterinary students, it addresses how stressors can impact mental health) (17), Germany and the United States (which contrast the suicide rate within the veterinary profession against that of the general population and reveals noteworthy disparities) $(\underline{8})$ and other countries not specifically mentioned in the present study. Furthermore, in another investigation conducted in the European Union, detailed a classification of nations (for instance: Denmark, France, Hungary, Portugal, Sweden) where burnout is officially recognized as an occupational malady, setting the corresponding financial compensations granted in response (4). The issue is, if anything, trickier: anxiety and stress maliciously appear from university studies onwards, there is a significant gender difference (women are more vulnerable) and the number of students being medicated by psychiatrists or attending behavioral psychologists' consultations increases. The current situation suggests that the mental health of the veterinary community is at serious risk, as students enter the labor market with a baseline burnout syndrome.

Moreover, the Covid-19 pandemic significantly impacted veterinary practices, increasing workload and exacerbating issues such as personnel shortages, which are the main challenges facing the future of the veterinary profession. Post-pandemic, there has also been an increase in the number of people unable to afford veterinary expenses, whether they are basic costs or more expensive ones for medications. This is another situation that veterinarians must practically face on a day-to-day basis in veterinary clinics (24). As a consequence of restricted purchasing power, many owners choose to put their pets down, especially if they suffer from chronic diseases or if they have to face unexpected expenses (e.g. a trauma operation due to



an accident), if not abandonment. Thus, although it may not be the current focus of this Bachelor's thesis, it is noteworthy to highlight the burden of performing euthanasia, which engenders a negative impact and increased likelihood of suicidal ideation among veterinary professionals (27). Another crucial aspect to mention which we have not yet incorporated into our research is the significant responsibility of veterinarians in making ethical decisions to ensures animal's healthcare, thereby exposing them to heightened levels of burnout (28).

To qualitatively corroborate the Burnout ratio of this Bachelor's Thesis compared to other studies, the average score of respondents regarding the expression of negative feelings in the workplace, such as feeling emotionally exhausted, indicates that it happens "almost always" and "always" in the work environment and, moreover, this occurrence is noted to happen "quite often" (7). Moreover, it is evident that the findings from one of the sections discussing levels of "work-related burnout", were similar to those observed in a study conducted in Australia. This same study remarked the importance of lack of control that ends up contributing to anxiety and depression (28). Thus, we can emphasize that this concept is highlighted again in another meta-analysis (30).

To ratify qualitatively speaking, the Burnout ratio according to the profile, we find the following observations: in a Brazil's conducted study, the Burnout syndrome was found to be higher in women than in men (1) and in another study conducted in the USA (9), the results were the same . Similarly, in another study conducted in Spain scores for "Emotional Exhaustion" were higher in women compared to men, furthermore, scores for "Depersonalization" were also higher in women compared to men (6). In the same line, other studies emphasize age as a factor closely linked to the level of work stress suffered by veterinary professionals, more markedly affecting young professionals under 35 years of age. In addition to that, another study stated that veterinarians experience higher levels of burnout in the first 5 years after graduation (6) and notably, other studies have found that psychological distress occurs more frequently among younger veterinarians (\leq 45 years of age) and veterinarians working in practice < 20 years (7). This burnout profile coincides with the results observed in our study, which points to the most vulnerable population in this context: young women.



The present study exhibits certain limitations. For instance, it is possible that only individuals who felt a stronger relationship with the themes addressed in the study opted to complete the survey. In this sense, it is likely that the most stressed professionals have vented their emotions by completing the survey. However, it is also worth considering that filling out such a survey may entail implicit stress and time consumption, so burned-out individuals may be, in that sense, less likely to participate. The sample size is another significant limitation, although we consider the participation rate achieved for this study a success.

While the results cannot be deemed representative of the veterinary community in the province of Las Palmas, the fact that many of our findings are qualitatively similar to those reported in the literature suggests that the situation of veterinarians in this province is similar to that observed in other populations. Conversely, the present study has several strengths that should be acknowledged. Firstly, it is the first time that the burnout situation in the veterinary community of the province has been explored. The results will be reported to the Official College of Veterinarians of the province so that they can establish, if they deem it appropriate, strategies for monitoring and reducing burnout, whatever they may be. Secondly, the use of validated scales to measure burnout and self-compassion has allowed us to compare our results with others with some confidence, and hopefully, it will enable us to publish this work in a specialized journal.

7. CONCLUSIONS

The present Bachelor's Thesis has explored the level of burnout, self-compassion, and anxiety/depression in 13.2% of the veterinarians affiliated with the Official College of Veterinarians of Las Palmas, corresponding to the 141 surveys received during the data collection period. We observed a level of exhaustion and cynicism higher than normative values, as well as lower effectiveness at work. Various demographic variables were associated with burnout subcategories, with notable factors being habitat (worse in urban environments), age (worse among younger veterinarians), and time dedicated to veterinary work (worse with less time in the profession).

While values related to self-compassion were similar to normative data, on sub-scales, we observed higher self-judgment, increased isolation, and greater over-identification, as well as a lower level of common humanity compared to normative data. Age emerged as a significant



demographic factor, with younger individuals reporting lower levels of self-compassion and higher levels of isolation. On the other hand, women appeared to be more self-judgmental regarding errors in their work. The feeling of isolation was significantly higher among veterinarians with less time dedicated to the profession. It is worth noting the relationship observed between burnout and self-compassion scales. We can highlight the negative correlation between self-compassion and exhaustion and cynicism, or the positive correlation between self-judgment, isolation, or over-identification with exhaustion and cynicism.

Finally, we observed that 19.8% of the sample had been diagnosed with anxiety/depression, 31.9% of the sample, although not diagnosed, believed they needed psychological/pharmacological help, and 19.1% of the sample were taking benzodiazepines. The need for treatment was higher among women and younger individuals, significantly greater in veterinarians practicing in urban environments, as well as those with less work experience. We observed a negative impact of anxiety/depression on burnout and self-compassion, and an impact of using benzodiazepines as a coping mechanism against burnout.

Overall, these results depict a complex reality that calls for a timely and appropriate intervention to enhance the well-being of veterinarians in the practice of their profession.

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